ABSTRACT

The invention relates to a rotary screw machine of volume type comprising a body (30) having a main axis X, two members (10, 20), wherein a first one (20) surrounds a second one (10). Said first member (20) is hinged in said body (30) and is able to swivel on itself about its axis (Xf), aligned with said main axis X, according to a swiveling motion, whereas the axis (Xm) of said second member (10), revolves about the axis of said first member (Xf) according to an revolution motion having said length E as a radius. The machine further comprises a synchronizer (34, 36, 38, 40) synchronizing said swiveling motion and said revolution motion, such that a working medium performs a volumetric displacement in at least one working chamber (11) delimited by an outer surface (22) of said first member (20) and a inner surface (12) of said second member (10).